DELIVERY OF TRAINING WORKSHOP IN THE DOMINICAN REPUBLIC
FINAL REPORT

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SUMMARY

A training workshop on invasive alien species was held in Santo Domingo, Dominican Republic, in November 2005. The main objectives of the training were to provide information and scientific basis on biological invasions and practice in the use of an invasive species database and complementary tools developed with I3N in Argentina and Brazil. Participants represented governmental and research agencies as well as NGOs. The database will be hosted by the Botanical Garden in Santo Domingo in agreement with the Secretary of Protected Areas and Biodiversity and The Nature Conservancy. This report includes suggestions for improvement of the workshop and the results of an evaluation done by participants.

RESUMEN

En noviembre de 2005 se realizó un taller de entrenamiento sobre especies exóticas invasoras en Santo Domingo, República Dominicana. Los principales objetivos del taller fueron brindar información sobre el proceso de invasiones biológicas y entrenar a los participantes en el uso de la base de datos y de las herramientas complementarias desarrolladas por I3N con Argentina y Brasil. Los participantes representaban a agencias de gobierno e instituciones de investigación, así como organizaciones no gubernamentales. La base nacional de datos estará ubicada en el Jardín Botánico en Santo Domingo en acuerdo con la Secretaría de Áreas Protegidas y Biodiversidad y The Nature Conservancy. Este reporte incluye sugerencias para la mejora de los talleres y los resultados de una evaluación realizada por los participantes.
INTRODUCTION

The training workshop on invasive alien species and I3N database tools took place in Santo Domingo from November 22 to 24. The first part of the workshop, covering concepts, theory of biological invasions and case studies, was held at the Clarion Hotel. The second part of the workshop, dedicated to practical use of the database tool, took place at INTEC – The Technological Institute, in one of their computer laboratories holding 20 computers.

The workshop was opened by the I3N Lead Brígido Hierro G., who invited the Vice-Minister / Sub-Secretary of Protected Areas and Biodiversity, Ángel Daneris Santana, the Director of The Nature Conservancy of the Dominican Republic, Andrés Ferrer, and the Brazil and Argentina I3N Leads Silvia Ziller and Sergio Zalba to speak in the opening session.

The I3N Lead Brígido Hierro G. facilitated the workshop and was extremely dedicated to making everything work as planned. The IABIN focal point Marina Hernandéz also attended.

There were 27 participants in the workshop, mainly from governmental agencies in the environment and agriculture (list attached), including the Director of the NGO Jaragua, Yvonne Arias, and the Director of Biodiversity of the Secretary of Protected Areas and Biodiversity, Amarilis Polonia. The representatives of the Ministry of Agriculture were very cooperative and willing to help develop a system to screen and assess risks of introductions that also affected the environment, which is a very positive outcome of the workshop. There seemed to be a more relaxed atmosphere for cooperation than usually seen in other countries between agriculture and environment.

LESSONS LEARNED AND SUGGESTIONS FOR IMPROVEMENT ON THE WORKSHOP MODULE

TIMING

The amount of time planned for the conceptual module was very good and allowed for good discussions of local issues and complementary cases. The module cannot
be extended, so if there is any change to be made there needs to be replacement of current slides and contents for it to be comfortable in 1 ½ days.

Several participants were not very punctual and some of the people would come and go, so not all participants were present during the entire course. This might happen in other countries as well, but time was still manageable and the contents flexible enough to fit in the time planned.

**EXAMPLES IN THE COURSE**

Many of the examples cited for better understanding of invasive species issues refer to Brazil and Argentina. This will be diversified before the workshop is held in Uruguay, in order to make the workshop more comprehensive and not have much focus in few countries. More cases need to be found for countries that constitute information gaps in South America, such as Bolivia, Paraguay, Peru and even Uruguay. As we evolve in the work with different countries these examples will become richer, so we’ll replace some of the current examples to make the course cover the Latin American context in a more comprehensive way.

**CASE STUDIES**

Despite the lack of practical action for the prevention and control of invasive alien species that threaten natural ecosystems in the Dominican Republic, many participants were eager to share their knowledge of invasions, impacts of non-native species and biological control work in the Dominican Republic. For this reason, we decided not to use the case studies we had previously selected for the workshop, and give people space for short presentations. Then we chose some cases and formed workgroups for people to classify the information into the different concepts we had formerly presented, which are equivalent to the contents of the database. In this way people were more familiarized with the database the following day, when they practiced registering information.

**EXERCISES ON DATABASE USE**

The exercises we used in the practical training session need to be revised, basically because of small inconsistencies that didn’t interfere with the results but needed revision. These issues have been resolved by Dr. Sergio Zalba. The revised version
of the exercise was sent to Marco Gaiani for the workshop in Venezuela, and will also be used in Uruguay.

DATABASE USE AND IMPLEMENTATION OF THE TOOL

The database training session in the computer laboratory clearly showed that this section of the training should be directed specifically for those people who are actually going to be database users, and mainly, who have the right profile to use and manage the database. Considering that our best indicator for the success of I3N and of fostering the control and prevention of invasive alien species is the number of countries that do implement this database tool and use it for decision-making, best results of these workshops will be assured if we manage to develop a relationship with each country government in advance. This may be done through a local partner like The Nature Conservancy, the IABIN Focal Point, the I3N Lead or another stakeholder who can help reach an agreement on the use of this product for governmental and scientific reference and planning. The workshop can then be used complementarily to consolidate the implementation of the database for the country.

Some people who also participated in the practical session had never before used a database, and easily messed up the given information either because they had no concept of Latin names or taxonomy, or because they had no concept of how to use a database or what it’s tailored to do.

Therefore, the process should, at least ideally, work as follows:

a) Contact country of interest through local stakeholder who understands the process of biological invasions and is a strong leader with established government relations;

b) make decisions on the implementation of a database for national reference, including who the manager and the people registering information will be, and where the database will be hosted and maintained under appropriate infra-structure. This can be done in an NGO or University structure as long as there is a formal agreement with the government for official adoption and use;
c) hold the training workshop to consolidate implementation, inviting a large number of participants to the theoretical sessions in days one and two, and a specific group of people to the practical training on day three. Those who are interested in seeing the tool and learning to use it can participate if they request to, but there should be more time and dedication in the specific training for the future manager and people in charge of registering;

d) provide some support from a distance until manager and users consolidate their practice on the database.

In this way, it would also be possible for us to prepare the database with country-specific data before holding the workshop, and formally hand it to the national agency for implementation. In the case of the Dominican Republic, data layers such as provinces, municipalities and an ecosystem classification system will be sent by email so we can adjust the database for their use.

If I3N funds are made available to collect data on invasive alien species, these funds would no doubt bring far more results once such a setup is prepared and there is a structure is ready to receive information. There can be no guarantee for the proper use of the information, but working this way would certainly improve the existing chances of success, understood as a solid national database for open reference and decision-making in the lines of the Convention on Biological Diversity.

**PLANNED FOLLOW-UP BY CONSULTANT WITH EACH TRAINEE**

The upcoming work is divided in two parts: first, adjusting the database for the specific context of Dominican Republic, and second, providing support until the database is implemented and running.

**Adjusting the database**

Implies inserting specific contents from the Dominican Republic into the database: provinces, municipalities and a classification of ecological systems. Part of this information has been sent by The Nature Conservancy, and we are awaiting the definition of the ecological classification of ecosystems used in the country. As soon as this data is received, the database will be populated accordingly with this...
controlled vocabulary and sent to TNC and the I3N National Lead for implementation.

Providing support for implementation

We will provide support as required until the database is implemented. The future trainers will be working together in implementing the database and are quite comfortable with the tool, so it does not seem that there will be any difficulty in the phase of implementation, but additional explanations and support can be provided any time. We expect to have the database implemented and running early in 2006, after the Christmas and New Year’s festivities.

WORKSHOP EVALUATION

The evaluation was done in the last day, after database practice. This did take some time from actual practice, while some people needed more time to go through the exercise – especially those without previous database experience. Not all people responded the questionnaire, so it might be a good idea to do this in two parts: the first part at the end of the second day, after case studies; and the database practice evaluation on the last day. There were 2-3 people from the National Botanical Garden who only attended the database training, since they will be involved in registering data, so these never responded questions referring to the theoretical part of the training.

This may have driven replies differently, since the contents and concepts of terms used in the database were covered in the theory sessions so people would have no difficulty understanding what sort of data was required in the database, and might also have slowed people down in responding the exercise.

MATERIALS DISTRIBUTED AT THE WORKSHOP

The GISP Toolkit of Best Prevention and Management Practices for Invasive Alien Species was distributed to all participants in CD, in Spanish. Other materials were made available and given to Brígido Hierro G., such as the GISP Newsletter about GISIN and others, the GISP manual for writing legal regulations on invasive alien species, and the IABIN Newsletter on the I3N database training in Brasília, Brazil.
MEASURES OF SUCCESS

My suggestions for indicators are:

a) number of countries that implement a national database with contents on invasive alien species within 1 year;

b) number of contributors to the database, from environment and agriculture, every year or every 6 months;

c) number of countries that make information on IAS freely available to the public within 2 years.

As noted in the lessons learned section, many people who are interested in the database do not have the profile or the knowledge to deal with the data, the taxonomy or the software. Establishing a more solid structure for a centralized database is the measure of maximum success, especially with a growing list of contributors.

FEEDBACK FROM TRAINEES

Most of the participants belonged to the Secretary of Protected Areas and Biodiversity, which is part of the State Secretary of Environment and Natural Resources of the Dominican Republic. In an agreement between the Secretary, the National Museum of Natural History and The Nature Conservancy has been decided that the Museum will hold the database for the country because it has appropriate infra-structure to maintain it in the long term. Brígido Hierro is directly involved in setting this up and will be leading the effort with the Secretary and with The Nature Conservancy.

The people who participated in the workshop were interested in contributing with information and it was quite obvious that nearly all of them had specific information to add and cases to discuss. I asked the two more active participants from the agricultural agencies if they would be able to contribute to the database and they were eager to do so and to see a wide range inventory for the country. Depending on how things develop, I might suggest that they have two separate databases, one for the environment and one for agricultural issues (and in the future, one for health matters, although the database was not designed for this purpose and cannot fit in virus and other microorganism taxonomy).
The objective was to have all participants familiarized with the contents of the database so they can collect information and contribute to a central process. This setup was already in place in the Dominican Republic due to cooperation between the government and The Nature Conservancy, which created a very good opportunity for us to offer a tool for their use. Nine professionals of the Secretary and two of the Botanical Garden were trained to use the database, and we gave Brígido some special attention so he can become a future trainer and give support to the people in charge of the database. Kasia Grasela of the The Nature Conservancy is the other potential talent to help the Museum record information until they are comfortable with it, as well as Idelfonso de los Angeles of the Botanical Garden and Carmelo Nuñez of the Natural History Museum. The remaining people belonged mostly to agricultural agencies and there was only one person from an NGO, the Jaragua Group.

**EVALUATION SHEETS**

Although the number of participants in the workshop was between 25 and 30, with people attending different sessions, only 11 people responded the evaluation questionnaire on the last day. Some people left earlier for other appointments, others apparently did not want to take their time to respond. Conclusions and suggestions are as follows:

**Attendance of workshop**

73% (8 out of 11) attended 75-100% of the workshop

18% (2 out of 11) attended less than 50% (National Museum staff who only participated in database training)

9% did not reply (1 out of 11)

**Quality of contents presented**

82% said contents were adequate

18% did not reply (probably the National Museum staff who only attended practice)

**Suggestion for extra topics**

64% had no additional suggestions
18% suggested new topics (case studies from initial invasion to eradication and detection systems for difficult systems (not explaining what “difficult” means)
18% did not reply

More time for specific topic(s)
36.5% suggested more time for: database practice, climate change, IAS control
36.5% thought time was good and appropriate for all topics
27% did not reply

Materials used
64% thought materials were good and appropriate
9% (1 out of 11) thought materials were reasonable, but did not explain
27% did not respond

Presentations and knowledge of presenters
82% thought presentations were good and clear, with good scientific knowledge
18% did not reply

Microsoft Access experience
18% (2 out of 11) were frequent Access users
27% were occasional users
54% had never used Access before

Previous experience with database or other IAS register tool
36% had previous experience with some registering system for IAS
64% had no experience

Quality of IAS database
64% thought it was easy to use and friendly
27% thought it was relatively easy
9% thought it was difficult and complex (this person had no previous experience with any information system and was not a scientist in biology)
Main advantages of the database (in order of frequency)

Easy access to find data, good base for decision-making

Easy registering

Friendly, easy use, easy and fast to register data

Good organization of data, good cross checking

Reliable information system

Possibility of central system for the region

Good platform, since nearly all people have Microsoft Access

Major problems for improvement

Fields that cannot be edited (taxonomy); date of observation (occurrences) should be dd/mm/yy format

Direct help system instead of access to manual

Intrinsic technical limitations

Easy to accidentally switch between windows with mouse and lose data

Main use for the database

Rapid access to information

Compile information and make it publicly available

Maintain and update information on IAS

Check information for decision-making and for dealing with requests for imports of species

Characterize IAS and distribution data; follow spread through dates of field observations

Access to experts and to projects in development

Exchange data with other countries

Additions of data fields to database tabs

Species: soil type; if species is under legal protection at international or regional level (54% did not have any suggestions)

Occurrences: soil type; stage of plant development (young/adult); more datum for geographical reference (54% did not have any suggestions)

Contacts: no additional suggestions
Projects: no additional suggestions

References: search for scientific references based on keywords (will be available in the web)
(91% did not have any suggestions)

Use of database manual
45% used the manual
55% did not use the manual

Search for specific information in the manual
18% searched for information and found it easily
9% searched for information and could not find it
72% did not search for specific information

Quality of text in the manual
45% thought the manual was clear and easy to understand and locate information
55% did not reply

Nobody said the manual was confusing or had any negative opinion of it

Usefulness of XML tool
91% said the XML tool was very useful
9% did not reply

Usefulness of Web interface and search tool
81% said the web interface was very useful
18% did not reply

Value of training session
54% said the training had been useful; one person said it required biological knowledge; one person said it had been excellent
45% did not reply

Additional comments
27% had no additional comments
27% requested more time for database practice
1 person said the database was very useful for compiling knowledge on species that are invasive in the country and also for flora/fauna species of other regions or countries

45% did not reply.

**CONTACT INFORMATION FOR TRAINEES**

*Please see excel sheet attached.*